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1646

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/312,596A

DATE: 05/17/2001

TIME: 10:10:14

Input Set : A:\593601.app

Output Set: N:\CRF3\05172001\I312596A.raw

3 <110> APPLICANT: Role, Lorna W.
4 Talmage, David
5 Bao, Jianxin
7 <120> TITLE OF INVENTION: A-FORM OF CYTOPLASMIC DOMAIN OF nARIA (CRD-NEUREGULIN
8 AND USES THEREOF
10 <130> FILE REFERENCE: 0575/59360
12 <140> CURRENT APPLICATION NUMBER: 09/312,596A
13 <141> CURRENT FILING DATE: 1999-05-14
15 <160> NUMBER OF SEQ ID NOS: 4
17 <170> SOFTWARE: PatentIn Ver. 2.1
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 3212
21 <212> TYPE: DNA
22 <213> ORGANISM: CHICKEN nARIA
24 <400> SEQUENCE: 1
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27 aagggtgagag tcttgccttt cgctctgggc tattgttca cttaatccgg tcaattttgtt 180
28 cgctgctcggt ggttgccttt ctccccggccc tccttcccccc tgttttgttt tggttcgctt 240
29 gctttcgcccc ggacgctccct tccctcagtc agaagagctg gaattgcttg agaggcgtat 300
30 aaggaattat aaaagtggcc agggaaacacg agcgcagtgta ctgcagagct gcccctggct 360
31 tcggcaaggc agcgtgagcg gcagagggtc cggggcagggg gcgggggggtc tccttttcc 420
32 cgtgcgttcc tcttctccca gttcggatga tggtgcgtt tcggacacttc cgctgactcc 480
33 tgccctgtga tttttgtga ggcgtgtgac tgttactccg tcttttctg tctgtgtttc 540
34 acagtaatgg actgtgatag agttaaggcc ttttggaggt gagctgtgtc acagctgatg 600
35 cttaaacatg tctgaagtag gcacccgagac ttcccccagc ccctcggtc agctgagccc 660
36 tggatgcattcc cttggcgccc tccccggctga ggagaacatg cggggggccc acagagagga 720
37 cagcagggtc ccagggtgtgg caggccctggc ctcgacactgc tgcgtgtgcc tggaaagcaga 780
38 ggcactgaaag ggctgcctca actctgagaaa gatctgcata gcccctatcc tggcttgctt 840
39 gctcagccctc tgcctctgca ttgctggcct caagttggtc ttgtggaca agatttttga 900
40 gtatgactct cctacacacc ttgaccctgg gaggatagga caagacccaa ggagcactgt 960
41 ggatcctaca gctctgtctg cttgggtgcc ttccggaggtg tatgcctcac cttccccat 1020
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43 caggcccttc cttcagccctt ctctctacaaa ccgcacatcata gatgtcggtg tgggtccctc 1140
44 tgccacaccc tcactgtcac catcctccct ggagcctacc acggcatctc aggcacaaggc 1200
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51 gaaaaaagtgtt catgaccggcc ttccggcagag ctttcgtca gagagggaaacca acgttatgaa 1620
52 catggcaaat gggccacacc acccccaaccc accaccagac aatgtccagc tggatgttgcac 1680
53 gtacgtttca aaaaacataa tctccagtgtac acgtgtgtt gggcgagaaa ccgagacccctc 1740
54 gttttccaca agccactaca cctcaacaac tcatactcc atgacactca cccagacgcc 1800
55 tagccacaccc tggatgttggaa acgtgtgtt gggcgagaaa ccgagacccctc 1860
56 cgtcagctcc tcagtggttggaa atagcaggca caccagccca acaggccac gggccctc 1920

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See p.5

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Input Set : A:\593601.app
Output Set: N:\CRF3\05172001\I312596A.raw

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58 tgactcctac cgagactctc ctcacagtga aaggtatgtc ttagctatga ccacaccagc 2040
59 tcgcgtgtca cccgttgatt tccacactcc aacttctccc aagtcccctc catctgaaat 2100
60 gtcaccacca gtttccagct tgaccatctc catcccttcg gtggcgggtga gtccctttat 2160
61 ggacgaggag agaccgctgc tggtgggtac cccaccacgg ctgcgtgaga agtacgacaa 2220
62 ccacccatccat caattcaact cttccacaa caatcccacc catgagagca acagtcgtcc 2280
63 acccagtctt ctgaggatag tggaggatag agagtatgag accacgcagg agtacgaacc 2340
64 agcacagggag ctcacaaaga aactcacca cagccggagg gtgaaaagaa caaagcccaa 2400
65 tggccatatt tccagcagg tagaagtgtga ctccgacaca agtctctcaga gcactagctc 2460
66 tgagagcgaa acagaagatg aaagaatagg tgaggataca ccatttctta gcatacaaaa 2520
67 tcccatggca accagtctgg agccagccgc tgcataatcggt ctggctgaga acaggactaa 2580
68 cccggcaaat cgcttctcca caccagaaga gttcaagca aggttgtcca gtgtaatagc 2640
69 taaccaagac cctattgtgt tataagacat aaacaaaaca catagattca catgtaaaaac 2700
70 tttattttat ataatgaagt attccacctt taaattaaac aatttattttt atttttagcaa 2760
71 ttccgctgtat agaaaaacaag agtggaaaaaa gaaacttta taaattaaat atacgtatgt 2820
72 acaaatgtgt tatgtccat atgttagcaat ttttacagt atttccaaaa tggggaaaaga 2880
73 tatcaatgtgt gcctttatgt tatgttatgt tgagagcaag ttttgcacag ctacaatgtat 2940
74 tgctgtcccg tagtattttt caaaacccctc tagccctcag ttgttctggc tttttgtgc 3000
75 attgcattat aatgactgga tgtatgatt gcaagaattt cagaagtccc catttgcttg 3060
76 ttgtgaaatc cccagatcaa aaagccctgt tatggcactc acaccctatc cacttcacca 3120
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82 <211> LENGTH: 1070
83 <212> TYPE: PRT
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87 <221> NAME/KEY: UNSURE
88 <222> LOCATION: (32)
89 <223> OTHER INFORMATION: Wherein Xaa = unclear results
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92 <221> NAME/KEY: UNSURE
93 <222> LOCATION: (42)
94 <223> OTHER INFORMATION: Wherein Xaa = unclear results
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97 <221> NAME/KEY: UNSURE
98 <222> LOCATION: (113)
99 <223> OTHER INFORMATION: Wherein Xaa = unclear results
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102 <221> NAME/KEY: UNSURE
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104 <223> OTHER INFORMATION: Wherein Xaa = unclear results
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107 <221> NAME/KEY: UNSURE
108 <222> LOCATION: (182)
109 <223> OTHER INFORMATION: Wherein Xaa = unclear results
111 <220> FEATURE:
112 <221> NAME/KEY: UNSURE
113 <222> LOCATION: (199)

RAW SEQUENCE LISTING

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Input Set : A:\593601.app

Output Set: N:\CRF3\05172001\I312596A.raw

114 <223> OTHER INFORMATION: Wherein Xaa = unclear results
 116 <220> FEATURE:
 117 <221> NAME/KEY: UNSURE
 118 <222> LOCATION: (888)
 119 <223> OTHER INFORMATION: Wherein Xaa = unclear results
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 127 <221> NAME/KEY: UNSURE
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 132 <221> NAME/KEY: UNSURE
 133 <222> LOCATION: (1067)
 134 <223> OTHER INFORMATION: Wherein Xaa = unclear results
 136 <400> SEQUENCE: 2
 137 Gly Cys Cys Cys Tyr Cys His Phe Cys Arg Cys Arg Cys Cys Tyr Arg
 138 1 5 10 15 /
 W--> 140 Phe Cys Phe Cys Ser Phe Tyr Arg Met Thr Ile Val Phe Leu Ala Xaa
 141 20 25 30
 W--> 143 Ala Asp Thr Ser Leu Arg Cys Ser Arg Xaa Glu Ser Cys Leu Ser Leu
 144 35 40 45
 146 Trp Ala Ile Gly Ser Leu Asn Pro Val Asn Leu Phe Ala Ala Arg Gly
 147 50 55 60
 149 Cys Leu Ser Pro Arg Pro Pro Ser Pro Cys Phe Val Leu Phe Arg Leu
 150 65 70 75 80
 152 Leu Ser Gly Gly Arg Ser Phe Pro Gln Ser Glu Glu Leu Glu Leu Leu
 153 85 90 95
 155 Glu Arg Arg Ile Arg Asn Tyr Lys Ser Gly Gln Glu Thr Arg Ala Gln
 156 100 105 110
 W--> 158 Xaa Leu Gln Ser Cys Pro Trp Leu Arg Gln Gly Ser Val Ser Gly Arg
 159 115 120 125
 161 Gly Leu Gly Gln Gly Ala Gly Leu Leu Phe Pro Val Arg Ser Ser
 162 130 135 140
 164 Ser Pro Ser Ser Asp Asp Val Ala Val Ser Asp Leu Ser Leu Thr Pro
 165 145 , 150 155 160
 W--> 167 Ala Leu Xaa Phe Leu Leu Ser Ala Val Thr Val Thr Pro Ser Leu Ser
 168 165 / 170 175
 W--> 170 Val Cys Val Ser Gln Xaa Trp Thr Val Ile Glu Leu Arg Pro Phe Gly
 171 180 / 185 190
 W--> 173 Gly Glu Leu Cys His Ser Xaa Cys Leu Asn Met Ser Glu Val Gly Thr
 174 195 200 205
 176 Glu Thr Phe Pro Ser Pro Ser Ala Gln Leu Ser Pro Asp Ala Ser Leu
 177 210 215 220
 179 Gly Gly Leu Pro Ala Glu Glu Asn Met Pro Gly Pro His Arg Glu Asp
 180 225 230 235 240
 182 Ser Arg Val Pro Gly Val Ala Gly Leu Ala Ser Thr Cys Cys Val Cys

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Input Set : A:\593601.app
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183	245	250	255
185	Leu Glu Ala Glu Arg Leu Lys Gly Cys	Leu Asn Ser Glu Lys Ile Cys	
186	260	265	270
188	Ile Ala Pro Ile Leu Ala Cys	Leu Leu Ser Leu Cys Leu Cys Ile Ala	
189	275	280	285
191	Gly Leu Lys Trp Val Phe Val Asp Lys Ile Phe Glu Tyr Asp Ser Pro		
192	290	295	300
194	Thr His Leu Asp Pro Gly Arg Ile Gly Gln Asp Pro Arg Ser Thr Val		
195	305	310	315
197	Asp Pro Thr Ala Leu Ser Ala Trp Val Pro Ser Glu Val Tyr Ala Ser		
198	325	330	335
200	Pro Phe Pro Ile Pro Ser Leu Glu Ser Lys Ala Glu Val Thr Val Gln		
201	340	345	350
203	Thr Asp Ser Ser Leu Val Pro Ser Arg Pro Phe Leu Gln Pro Ser Leu		
204	355	360	365
206	Tyr Asn Arg Ile Leu Asp Val Gly Leu Trp Ser Ser Ala Thr Pro Ser		
207	370	375	380
209	Leu Ser Pro Ser Ser Leu Glu Pro Thr Thr Ala Ser Gln Ala Gln Ala		
210	385	390	395
212	400	405	410
213	415		
215	Thr Thr Gly Thr Ser His Leu Thr Lys Cys Asp Ile Lys Gln Lys Ala		
216	420	425	430
218	Phe Cys Val Asn Gly Gly Glu Cys Tyr Met Val Lys Asp Leu Pro Asn		
219	435	440	445
221	Pro Pro Arg Tyr Leu Cys Arg Cys Pro Asn Glu Phe Thr Gly Asp Arg		
222	450	455	460
224	Cys Gln Asn Tyr Val Met Ala Ser Phe Tyr Lys His Leu Gly Ile Glu		
225	465	470	475
227	480		
228	485	490	495
230	495		
231	Gly Ile Cys Ile Ala Leu Leu Val Val Gly Ile Met Cys Val Val Ala		
233	500	505	510
234	515	520	525
236	Tyr Cys Lys Thr Lys Lys Gln Arg Lys Lys Leu His Asp Arg Leu Arg		
237	530	535	540
239	Gln Ser Leu Arg Ser Glu Arg Asn Asn Val Met Asn Met Ala Asn Gln		
240	545	550	555
242	560		
243	Tyr Val Ser Lys Asn Ile Ile Ser Ser Glu Arg Val Val Glu Arg Glu		
245	565	570	575
246	580	585	590
248	590		
249	Ser Met Thr Val Thr Gln Thr Pro Ser His Ser Trp Ser Asn Gly His		
251	595	600	605
252	605		
254	Thr Glu Ser Ile Leu Ser Glu Ser His Ser Val Leu Val Ser Ser Ser		
255	610	615	620
	630	635	640

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Input Set : A:\593601.app
Output Set: N:\CRF3\05172001\I312596A.raw

257 Asn Gly Ile Gly Gly Pro Arg Glu Gly Asn Ser Phe Leu Arg His Ala
258 645 650 655
260 Arg Glu Thr Pro Asp Ser Tyr Arg Asp Ser Pro His Ser Glu Arg Tyr
261 660 665 670
263 Val Ser Ala Met Thr Thr Pro Ala Arg Met Ser Pro Val Asp Phe His
264 675 680 685
266 Thr Pro Thr Ser Pro Lys Ser Pro Pro Ser Glu Met Ser Pro Pro Val
267 690 695 700
269 Ser Ser Leu Thr Ile Ser Ile Pro Ser Val Ala Val Ser Pro Phe Met
270 705 710 715 720
272 Asp Glu Glu Arg Pro Leu Leu Leu Val Thr Pro Pro Arg Leu Arg Glu
273 725 730 735
275 Lys Tyr Asp Asn His Leu Gln Gln Phe Asn Ser Phe His Asn Asn Pro
276 740 745 750
278 Thr His Glu Ser Asn Ser Leu Pro Pro Ser Pro Leu Arg Ile Val Glu
279 755 760 765
281 Asp Glu Glu Tyr Glu Thr Thr Gln Glu Tyr Glu Pro Ala Gln Glu Pro
282 770 775 780
284 Pro Lys Lys Leu Thr Asn Ser Arg Arg Val Lys Arg Thr Lys Pro Asn
285 785 790 795 800
287 Gly His Ile Ser Ser Arg Val Glu Val Asp Ser Asp Thr Ser Ser Gln
288 805 810 815
290 Ser Thr Ser Ser Glu Ser Glu Thr Glu Asp Glu Arg Ile Gly Glu Asp
291 820 825 830
293 Thr Pro Phe Leu Ser Ile Gln Asn Pro Met Ala Thr Ser Leu Glu Pro
294 835 840 845
296 Ala Ala Ala Tyr Arg Leu Ala Glu Asn Arg Thr Asn Pro Ala Asn Arg
297 850 855 860
299 Phe Ser Thr Pro Glu Glu Leu Gln Ala Arg Leu Ser Ser Val Ile Ala
300 865 870 875 880
W--> 302 Asn Gln Asp Pro Ile Ala Val Xaa Asp Ile Asn Lys Thr His Arg Phe
303 885 890 895
305 Thr Cys Lys Thr Leu Phe Tyr Ile Met Lys Tyr Ser Thr Phe Lys Leu
306 900 905 910
308 Asn Asn Leu Phe Tyr Phe Ser Asn Ser Ala Asp Arg Lys Gln Glu Trp
309 915 920 925
W--> 311 Lys Lys Lys Leu Leu Xaa Ile Lys Tyr Thr Tyr Val Gln Met Cys Tyr
312 930 935 940
314 Val Pro Tyr Val Ala Ile Phe Tyr Ser Ile Ser Lys Met Gly Lys Asp
315 945 950 955 960
317 Ile Asn Gly Ala Phe Met Leu Cys Tyr Val Glu Ser Lys Phe Cys Thr
318 965 970 975
W--> 320 Ala Thr Met Ile Ala Val Pro Xaa Tyr Phe Ala Lys Pro Ser Ser Pro
321 980 985 990
323 Gln Leu Phe Trp Leu Phe Cys Ala Leu His Tyr Asn Asp Trp Met Tyr
324 995 1000 1005
326 Asp Leu Gln Glu Leu Gln Lys Ser Pro Phe Ala Cys Cys Gly Ile Pro
327 1010 1015 1020
329 Arg Ser Lys Ser Pro Val Met Ala Leu Thr Pro Tyr Pro Leu His Gln

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/312,596A

DATE: 05/17/2001
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Input Set : A:\593601.app
Output Set: N:\CRF3\05172001\I312596A.raw

L:140 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:158 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:173 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:302 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:311 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:320 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:335 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:426 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:489 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:492 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:495 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:498 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:501 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:504 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:507 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4